Geometry

Name ANSWER KEY

UNIT 2 REVIEW PACKET

Per. _____ Date _____

Directions: In the box provided next to each target section, put an (S) if you were able to complete the section by *yourSELF*, an (H) if you received a *minimal* amount of *HELP* from me, a classmate, or another source, or a (D) if you felt the section was *DIFFICULT* and required you to get *a lot* of help. This will help provide you by giving you feedback as to what topics you should be focusing on as you prepare for the test. THIS IS DUE THE DAY OF THE TEST!

TARGET 2A & 2B (#1- 4)

1.) Use the picture below to answer the following questions:

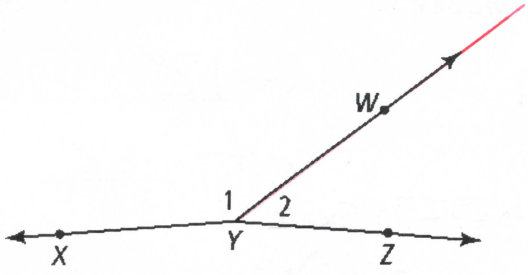
1a. Give 3 different names for the angle ∠Y, ∠XYZ, ∠ZYX

1b. Name the vertex of the angle Y

1c. Name the sides of the angle $\overrightarrow{YX}$ $\overrightarrow{YZ}$

1d. Use a protractor to measure the angle 63°

2.) Use the picture below to answer the following questions:



2a. Give another name for ∠*XYW* ∠WYX

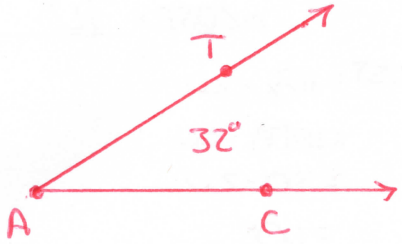
2b. Give another name for ∠2 ∠WYZ OR ∠ZYW

2c. Name the sides of ∠*ZYW* $\overrightarrow{YZ}$, $\overrightarrow{YW}$

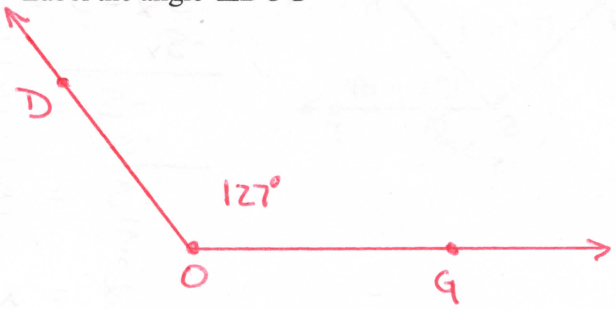
2d. Measure ∠*XYW* using a protractor 147°

2e. Measure ∠*ZYW* using a protractor 42°

3.) Draw an angle with a measure of 32°
Label the angle ∠*CAT*

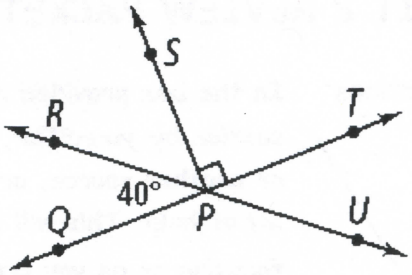


4.) Draw an angle with a measure of 127°
Label the angle ∠*DOG*



TARGET 2C (#5 - 10)

For #5 - 10, decide if the angle is *acute*, *right*, *obtuse* or *straight*.



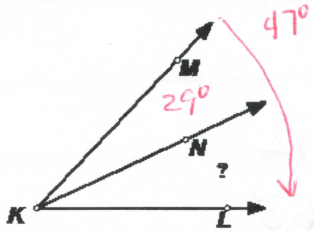
5.) $\angle SPR$ ACUTE 6.) $\angle SPT$ RIGHT

7.) $\angle RPT$ OBTUSE 8.) $\angle UPR$ STRAIGHT

9.) $\angle QPS$ RIGHT 10.) $\angle SPU$ OBTUSE

TARGET 2D (#11-15)

11.) If $m\angle MKL = 47°$ and the $m\angle MKN = 29°$, find the measure of $\angle LKN$.

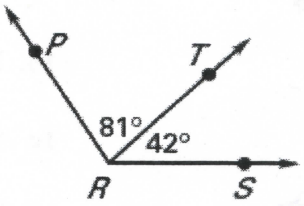


$47° - 29° =$

$= 18°$

$m\angle LKN =$ 18°

12.) Find the $m\angle PRS$.

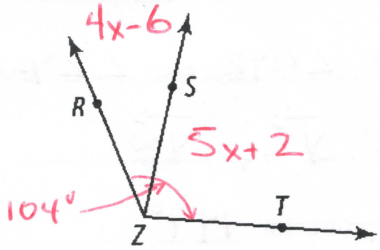


$81° + 42° =$

$123°$

$m\angle PRS =$ 123°

13.) If $\angle RZS = 4x - 6$, $\angle SZT = 5x + 2$ and $m\angle RZT = 104°$, find x and $m\angle SZT$



$(4x-6)+(5x+2)=104$

$9x - 4 = 104$

$+4 \quad +4$

$\frac{9x}{9} = \frac{108}{9}$

$x = 12°$

$x =$ 12°

$m\angle SZT =$ 62°

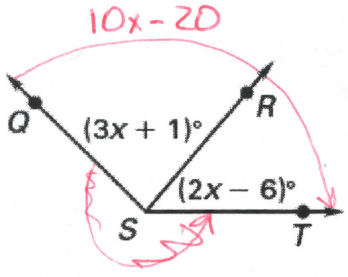
$m\angle SZT = 5x+2$

$= 5(12)+2$

$= 60+2$

$= 62°$

14.) If $\angle QSR = 3x + 1$, $\angle RST = 2x - 6$, and $\angle QST = 10x - 20$, find x and $m\angle QST$.



$(3x+1)+(2x-6) = 10x-20$

$5x - 5 = 10x - 20$

$-5x \quad -5x$

$-5 = 5x - 20$

$+20 \quad +20$

$\frac{15}{5} = \frac{5x}{5}$

$3 = x$

$x =$ 3°

$m\angle QST =$ 10°

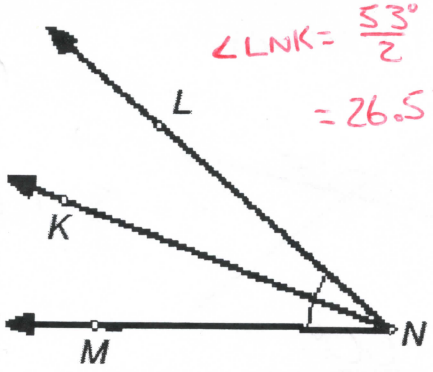
$m\angle QST = 10x - 20$

$= 10(3) - 20$

$= 30 - 20$

$= 10°$

15.) Use the picture to below to answer the following questions. $\overrightarrow{KN}$ **bisects** ∠LNM.



∠LNK = $\frac{53^\circ}{2}$ = 26.5°

12a. If m∠LNM = 53°, find m∠LNK 26.5°

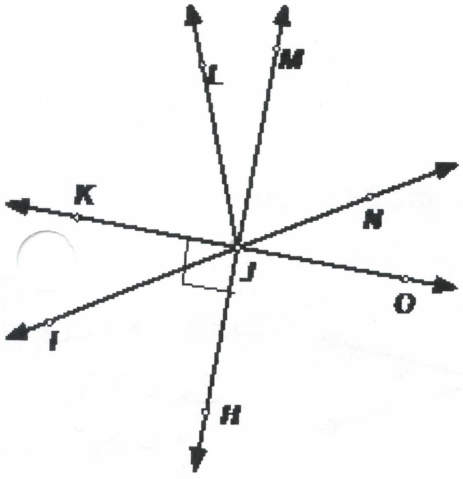
12b. If ∠LNK = 5x – 16 and ∠KNM = 2x + 8, find x and ∠LNM

5x - 16 = 2x + 8
3x = 24
x = 8°

x = 8° ∠LNM = 48°

TARGET 2E (#16 - 21)

For #16-21 , use the picture below to answer the following questions.



16.) Name an angle vertical to ∠MJN ∠IJH

17.) Name an angle adjacent to ∠NJO ∠MJN OR ∠OJH

18.) Name an angle that forms a linear pair with ∠KJL ∠LJO

19.) Name an angle complementary to ∠KJI ∠IJH

20.) Besides ∠KJH , name another right angle ∠HJO OR ∠MJO OR ∠MJK

21.) What are three different angle pair names that describe

∠IJL and ∠LJN ? LINEAR PAIR

SUPPLEMENTARY , ADJACENT

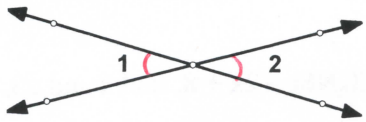
TARGET 2F (#22-27)

22.) Fill in the chart below. Use the given angle to find its complement (add to 90°) and its supplement (add to 180°)

Angle	Complement	Supplement
33°	90-33 = 57°	180-33 = 147°
87°	90-87 = 3°	180-87 = 93°
52°	90-52 = 38°	180-52 = 128°

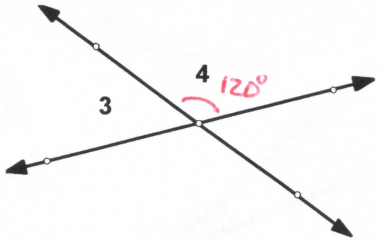
23.) Solve for the missing angle using the given information:

a) $m\angle 1 = 30°$, find $m\angle 2$



$m\angle 2 =$ 30°

b) $m\angle 4 = 120°$, find $m\angle 3$.

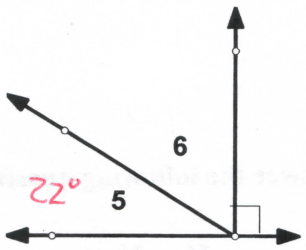


180-120 = 60

$m\angle 3 =$ 60°

c) $m\angle 5 = 22°$, find $m\angle 6$.

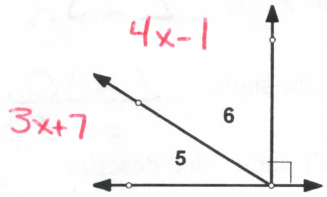
$m\angle 6 =$ 68°



90-22 = 68°

For #24-27, solve for the variable and the indicated angle(s).

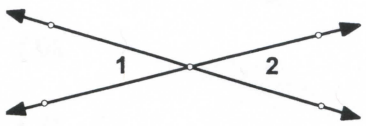
24.) $m\angle 5 = 3x + 7$ and $m\angle 6 = 4x - 1$



(3x+7)+(4x-1) = 90
7x+6 = 90
7x = 84
x = 12°

x = 12°, ∠6 = 47°, ∠5 = 43°

25.) $m\angle 1 = 3x - 8$, $m\angle 2 = x + 20$

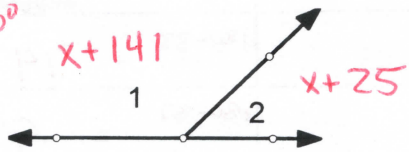


3x-8 = x+20
2x = 28
x = 14°

x = 14°, ∠1 = 34°, ∠2 = 34°

26.) $m\angle 1 = x + 141$, $m\angle 2 = x + 25$

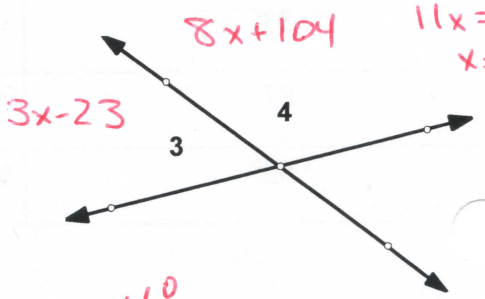
(x+141)+(x+25) = 180°
2x+166 = 180°
2x = 14°
x = 7°



x = 7°, ∠1 = 148°, ∠2 = 32°

27.) $m\angle 3 = (3x - 23)°$, $m\angle 4 = (8x + 104)°$

(3x-23)+(8x+104) = 180
11x+81 = 180
11x = 99
x = 9°



x = 9°, ∠3 = 4°, ∠4 = 176°